

REMARKS

The present invention is directed to a high pressure discharge lamp which allows a discharge to be initiated with a fairly low high-voltage pulse. For example, the present invention utilizes a reference plane X1 (1st reference plane) which is positioned at a section having a greatest curvature of an inner surface of a light emitting part at a base portion of an electrode nearer a first sealing part. The present invention also utilizes a reference plane Y (2nd reference plane) parallel to the reference plane X1 and which is about 5 mm from the reference plane X1 (1st reference plane), a plane Z (3rd reference plane) which is parallel to the reference X1 and which passes through the tip of the electrode 5. Within the areas defined by the reference planes Y and Z, a closed loop enclosing light emitting part 1 or first sealing part 2 does not exist. (Pg. 11, ln. 19 – Pg. 12, ln. 9) By not having the closed loop between the reference planes Y and Z, the interference with the high-frequency magnetic field B generated by the high-frequency current flowing to the lead portion of the proximity conductor 110 is reduced. (Pg. 17, lns. 8 – 16) This allows the hi-frequency magnetic field B to cause the electrons within the discharge space 12 to become more animated and allow a discharge to be initiated with a fairly low high-voltage pulse. (Pg. 17, ln. 8 – Pg. 18, ln. 4)

The Office Action on Page 3 rejected Claims 1, 4, and 12 under 35 U.S.C. § 102 as being anticipated by *Honda et al.* (U.S. Pat. Pub. No. 2001/0003411).

[T]he dispositive question regarding anticipation is whether one skilled in the art would reasonably understand or infer from the prior art reference's teaching that every claim [limitation] was disclosed in that single reference.

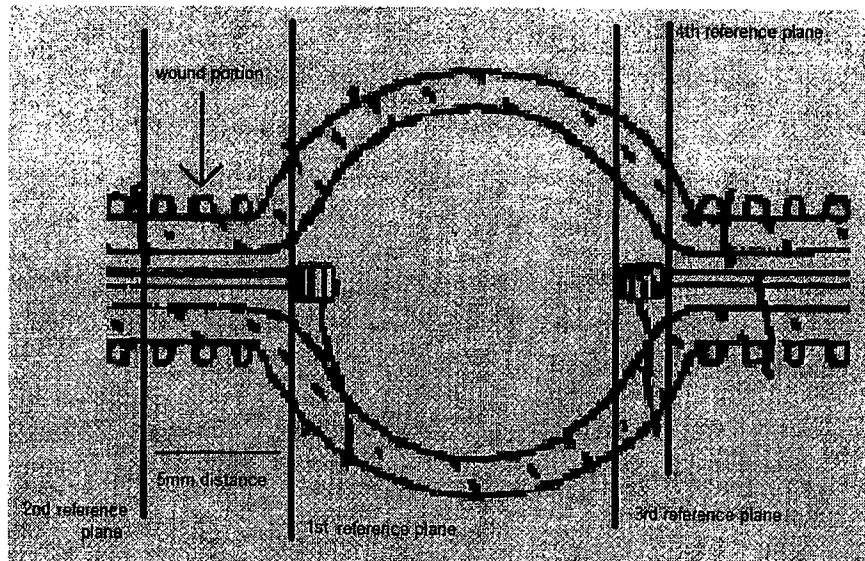
Dayco Prods., Inc. v. Total Containment, Inc., F.3d 1358, 1368 (Fed. Cir. 2003).

Honda does not teach or suggest

[T]he wound portion and the lead portion are without a closed loop within the range between the 2nd reference plane and the 3rd reference plane.

Honda is directed to a light emitting bulb having a discharge medium in a light-transmissive ceramic discharge enclosure with a first metallic coil wound on the outside surface of at least one of the small-diameter portions through which the first electrode is inserted and that is coupled to have the same potential as the second electrode.

The Office Action on page 6 cites to the 1st reference plane as shown below:

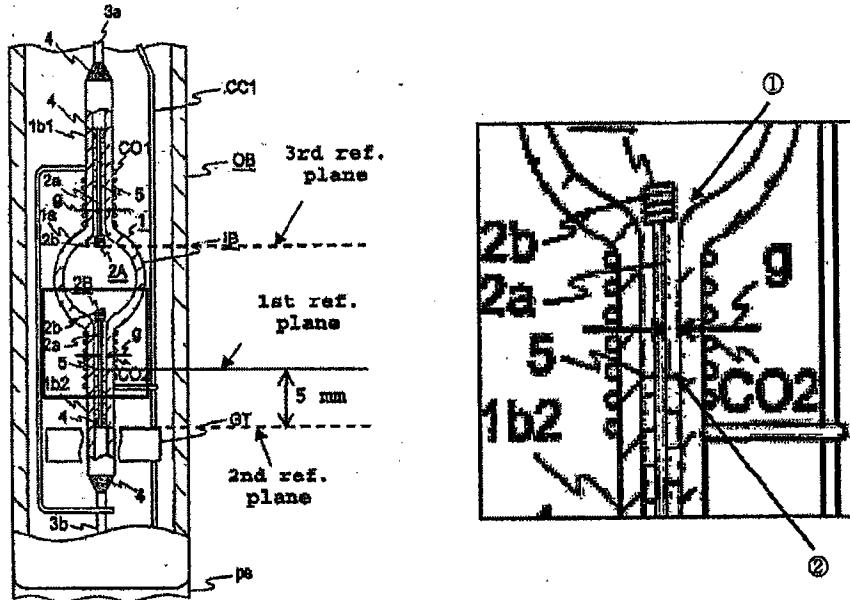


However, Claim 1 as amended indicates that the 1st reference plane is

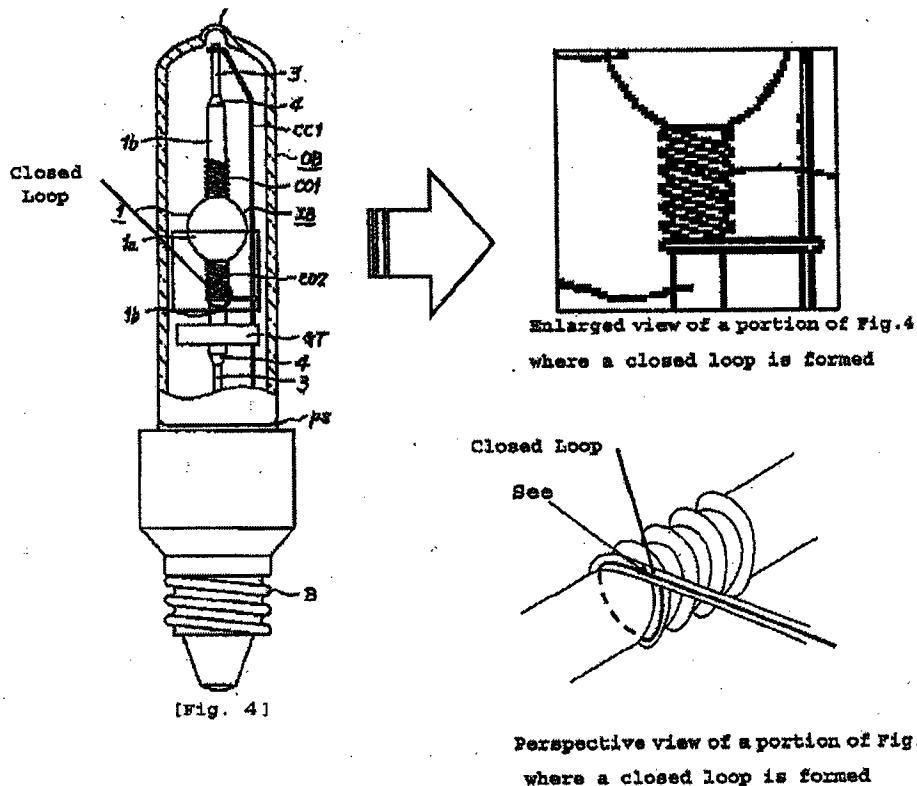
[L]ying orthogonal to a bulb longitudinal direction and including an end of the discharge space positioned at a section, having a greatest curvature, of an inner surface of the light emitting part at a base portion of the electrode nearer the first sealing part.

Since, there is a gap *g* between the small-diameter cylinder 1b and the first and the second electrodes 2A and 2B, the portion of the small-diameter cylinder 1b which includes the gap *g* is part of the discharge space in *Honda*. (¶ 0163) When including the portion of the small-diameter cylinder 1b which includes the gap *g*, the section in *Honda* having the greatest

curvature, which defines the 1st reference plane, is not at the position disclosed in the Office Action on Page 6 (and indicated by the #1), but at the portion of the small-diameter cylinder 1b which includes the gap g as shown below (and indicated by the #2):



Based on the position of the 1st reference plane shown above, the 2nd, 3rd, and 4th reference planes can also be seen. With the 2nd and 3rd reference planes of *Honda*, a closed loop is formed between the 2nd and the 3rd reference plane at the end of the metallic coil extending to the junction conductor CC1 (as indicated by the arrow in the attached drawing). This is illustrated in FIG. 4 of *Honda*, as shown below:



The closed loop generates a magnetic field that offsets a high-frequency magnetic field and directly affects the discharge space. Thus, by having a closed loop between the 2nd reference plane and the 3rd reference plane, the breakdown voltage is not lowered in *Honda*. As can be appreciated, *Honda* does not teach the features of the present invention.

Furthermore, *Danno* also does not remedy the deficiencies of *Honda* as there is no indication that it teaches the features of the present invention.

In contrast, in the present invention, there is no closed loop between the 2nd reference plane (plane Y) and the 3rd reference plane (plane Z). (FIG. 1) Since the magnetic field that offsets high-frequency magnetic field and directly affects the discharge space is not between the 2nd reference plane and the 3rd reference plane, it does not prevent the lowering of the breakdown voltage.

The Office Action on Page 6 rejected Claim 3 under 35 U.S.C. § 103 as being obvious over *Honda* in view of *Danno et al.* (JP 58198327). The Office Action on Page 6 also rejected Claims 8 – 11 and 13 – 14 under 35 U.S.C. § 103 as being obvious over *Honda*.

Dependent Claims 3, 4, 8 – 11, 13, and 14 depend from and further define independent Claim 1 and are thus allowable, too.

If the Examiner believes a telephone interview will assist in the prosecution of this case, the undersigned attorney can be contacted at the listed phone number.

Very truly yours,

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